

Remarks


Reconsideration of this Application is respectfully requested. Claims 1-11 are pending in the application, with claim 1 being the independent claim. Based on the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Rejections Under 35 U.S.C. § 102

In the Office communication dated September 19, 2005 ("Office Action"), the Examiner rejected claims 1-11 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,925,172 to Sabouri *et al.* ("Sabouri"). Because the described interface circuit described in Sabouri does not teach or suggest each feature of independent claim 1 of the present application, Applicant respectfully requests that the rejection be reconsidered and withdrawn.

More specifically, the Examiner erred when equating series resistors 36 and 38 of Sabouri with the first through fourth impedances recited in independent claim 1. The term "impedance" is a term of art in the electrical field that refers to total opposition to current flow in an alternating current circuit. Impedance is made up of two components, ohmic resistance and reactance. Reactance is a measure of the opposition of electric current due to inductance and capacitance, rather than resistance. Impedance is usually represented in complex notation as $Z = R + iX$ where R is the ohmic resistance and X is reactance. While an impedance circuit element could conceivably be purely resistive (e.g., where $X=0$), the reverse is not true. Finally, in the context of alternating circuits, a impedance circuit element would have a substantially different effect on the circuit than a resistive circuit element--i.e., the two are not interchangeable.

The difference between resistance and impedance circuit elements is clearly reflected in Sabouri. For example, Sabouri refers to "a small matching impedance 24 (Z_M)" where the disclosed circuit refers to an impedance element (col. 2, ll. 41-48), and to "series resistors 36 (R_4)" and "series resistors 38 (R_5)" (col. 2, ll. 52-56) where the disclosed circuit refers to a purely resistive element. This difference is also clearly reflected in the present application. There, for example, Applicant states that "the middle impedance 13 for the hybrid circuit 1 of the present invention can be a parallel combination of a capacitor C2 and a serial combination of a resistor R1 and a capacitor C1." (App., ¶ 30, p. 7.) Furthermore, Applicant clearly refers to impedance by its proper electrical symbol Z.

Turning to the present rejection, the Examiner asserts that circuit elements 36 and 38 of Sabouri may be equated to the first through fourth impedances recited in claim 1. Applicant respectfully disagrees with this characterization and asserts that circuit elements 36 and 38 of Sabouri are limited to resistors. First, figures 1 and 2 of Sabouri use the common circuit designation of resistor . (Fig. 1-2.) Second, Sabouri describes resistors 36 and 38 as "series resistors 36 (R_4)" and "series resistors 38 (R_5)."
(col. 2, ll. 49-59.) These "series resistors" serve as a buffer between the first and second filter outputs, and the input of the receiver amplifier. (Id.) There is no teaching or suggestion in Sabouri that resistors 36 and 38 are impedance circuit elements. As noted above, resistance elements and impedance elements are distinct circuit elements, and substituting impedance elements for these resistors would substantively affect circuit behavior.

In light of the above discussion, it should be clear that Sabouri does not teach or suggest the feature of claim 1 that recites "a first output terminal of the output line is connected via a *first impedance* to a first terminal of the input line and via a *second impedance* to the first terminal of the second coil and a second terminal of the output line is connected via a *third impedance* to the second terminal of the input line and via a *fourth impedance* to the first terminal of the first coil." (emphasis added) For at least these reasons, Applicant respectfully requests that the rejection of independent claim 1 be reconsidered and withdrawn. Because claims 2-11 depend from claim 1, Applicant similarly requests that the rejection of these claims also be reconsidered and withdrawn.

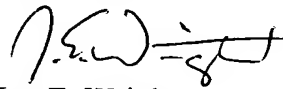
Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Jon E. Wright
Attorney for Applicant
Registration No. 50,720

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1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600

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